

Using patents to secure a competitive advantage

When I mention that I am a patent attorney, people often remark that I must see some interesting new technologies. Whilst this is of course the case, much of my time is spent helping clients protect small modifications to existing technologies.

In the chemical sector a small change to a product or process can have a significant impact on performance. If this change has not been tried before and it is not obvious then you may have a patentable invention.

What is obvious?

To obtain a patent an invention must be novel and inventive in view of the “prior art”. The prior art encompasses anything that has been made publicly available before a patent application is filed. This includes written and spoken disclosures and public uses of a product.

As well as being new or in some way different, an invention must also be inventive or not obvious compared to the prior art. From a legal point of view, whether something is obvious is considered from the point of view of a fictitious “skilled person” who is very knowledgeable but has no imagination. What this means is that even small modifications that have an unexpected improvement may be considered inventive.

What you can protect

In the chemical area, we often use patents to protect formulations. It can take a lot of time to develop an optimum formulation for a product. Often many different possible components of a formulation are assessed and the amounts of each component adjusted before a final commercial formulation is selected.

When developing formulations, challenges may arise, for example an unexpected antagonism between particular components. Finding a component which resolves that antagonism may be a patentable invention.

Sometimes researchers find that the inclusion of a particular surfactant, for example, unexpectedly improves performance to a significant degree compared with alternative surfactants. Such an effect may be patentable.

In some cases an invention may arise when a particular combination of components allows another more expensive or more toxic component to be replaced or used at a lower concentration.

Optimisation of concentrations or ratios of ingredients can lead to a patentable invention if data can be provided

to illustrate that an unexpected benefit is achieved when particular amounts are used, even if the ingredient combination is generally known in the prior art.

The finding that a material provides a previously unrecognised technical effect can also result in a patentable invention even if the same material has already been used in the same way in the prior art. For example, showing that a surfactant compound provides oxidation stability could allow that surfactant to be patented for use as an anti-oxidant.

What should you protect?

Potentially patentable inventions arise frequently during chemical research and development.

Many companies do not have the resources to protect all of their inventions, and thus choose to protect those which are likely to be commercially important.

Whilst many processes are patentable, if the resultant product of a process is indistinguishable from a product made by an alternative method then it may be better to keep the invention secret if you can. Patent applications are published 18 months after filing.

Patents can often be advantageous in a crowded field to protect the latest developments. Even if the scope of protection achieved is narrow, if you have carried out extensive research and know that particular components in particular amounts provide a benefit, it may be worth protecting the favoured product so that competitors have to work around your patent and can only offer an inferior product.

Most businesses do not want to infringe a patent and thus protecting your key products by filing patent applications can be commercially very advantageous. Marking a product as “patented” also lets your customers know that they will be unable to obtain a product having the same features from an alternative supplier.

Often the key to securing good patent protection, especially in a crowded field, is providing good data to illustrate superior performance. Therefore keeping good records of disappointing results as well as your successes is critical. And be sure to keep everything secret until a patent application is filed!

*If you would like advice or information on how to obtain patent protection for inventions arising from chemical research and development please contact **Jennifer Delaney**, Partner, Appleyard Lees.*